ENTOMOLOGICAL NEWS

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION,

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

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OUR illustration this month represents a well-equipped entomological laboratory. It shows the progress entomology has made from a study looked upon as humbug to one now on a firm basis and its true value recognized by all people of intelligence, if not by the entire community. It will be seen that here are found all the apparatus for scientific work and research. We hope that such a laboratory may be duplicated in every State in the Union. The particular laboratory represented is that of the State Entomologist of New Jersey and Professor of Natural History at Rutgers College at New Brunswick.

A MODEL ENTOMOLOGICAL LABORATORY.

—o—

ENTOMOLOGY AT CLEVELAND, OHIO.

By M. BUBNA.

After reading different numbers of ENTOMOLOGICAL NEWS, so far issued, I find that the locality at Cleveland, O., has not as yet been mentioned. It is not surprising because this locality has been entomologically dead for a number of years, and since the death of Dr. J. P. Kirtland, who was the leading naturalist in this vicinity. Dr. Kirtland's collection became neglected, and the insects are all destroyed. I have been collecting insects off and on for twenty years and never met with an entomologist here,

until I was informed of a few subscribers of ENT. NEWS, John Schwemler and Prof. Beardsley. Through them I found a few others, and now the study of entomology has been a source of great pleasure to me. A Natural History Club is now organized in Cleveland, and the department of entomology is receiving due attention. In a short time we expect to be in good working order. The following is a list of Rhopalocera collected last Summer :—

Papilio ajax three forms; plentiful.
chresphontes two; rare.
philenor plentiful second and third of May and a few in July.
troilus second and third of May, ♂ quite abundant, later ♀.
turnus scarce this year.
" *glaucus* three specimens.
asterias common as usual.
Pieris rapæ common.
protodice for the first time in several years; last year in October.
Argynnis cybele common.
aphrodite common.
bellona common.
idalia three specimens in August.
Colias philodice and also var. *alba*.
Meg. cæsonia one large specimen.
Danais archippus common.
Terias nicippe one badly worn.
Phyciodes nycteis common.
tharos "
Grapta interrogationis var. *umbrosa*. } all were abundant.
" *fabrici*. }
progne few. }
comma two forms. }
Vanessa antiopa common.
Pyrameis huntera common.
cardui none; plentiful last year in September.
Junonia cœnia two specimens.
Limenitis ursula common.
disippus common.
Apatura celtis one; rare; first ever seen here.
clyton " " " "
Neonympha eurytris common.
Libythea bachmani plentiful one day in June on blackberry blossoms (never before caught any).
Thecla two specimens; not identified.
Chrysophanus americana common.
thœ rare.

Lycæna comyntas common.
pseudargiolus two forms ; common.
Ancyloxypha numitor common.
Pamphila peckius
zabulon
hobomok
Pyrgus tessellata for the first time, last and this year.
Eudamus bathylus common.
tityrus common.
Insects were rather scarce in Summer and Fall of last year.

Mr. C. V. PIPER's article in March number of ENT. NEWS recalls to my mind a similar experience (see ENT. NEWS, vol. v, pp. 167 and 168). As I am not familiar with the species of Coccinellidæ, I cannot say that the species was *transversoguttata*, but certain it is, that the insects noted in such great numbers on the mountain in Utah and at an elevation of probably 9000 feet were members of the same genus. The impression made upon my mind by what seemed to me so remarkable a flight will not soon be effaced, and I, too, desire to know why the Coccinellidæ were there. A similar flight on the part of *Cantharis nuttallii* would prove that other insects do move in the same manner. In the article above referred to I noted two similar observations concerning this insect. A reasonable inference would seem to be that the insects were in search of food, but were controlled by the wind and sometimes carried to destruction.—ARTHUR J. SNYDER.

THYATIRA RECTANGULATA Ottolengui IN CANADA.—In the February number of ENT. NEWS, p. 26, Mr. Ottolengui states that the specimens of *Thyatira* that he has seen from Canada have all been the typical *scripta*. The new species, however, also occurs here. In August, 1896, I took a nice example of *rectangulata* at Little Metis (Rimouski County), Quebec, a village on the south shore of the river St. Lawrence, about 200 miles below Quebec, and I have also taken the species in the neighborhood of Montreal, but in both localities it is rarer than *scripta*. The label "Hudson Bay Territory" on the British Museum specimen is very vague, but if the species occurs along the lower St. Lawrence there is no reason why it should not also be found in some part of the vast district which was formerly known under this name. It is a pity that all descriptions of new species of Lepidoptera could not be accompanied by figures like the excellent one in the February number, and I think it would be interesting to many of the readers of the NEWS to have an article on the cost of such cuts by some one of the leading photo-engravers.*—A. F. WINN, Westmouth, Quebec.

* Half-tone cuts cost 25 cents a square inch.—ED.

ENTOMOLOGICAL NEWS.

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PHILADELPHIA, PA., MAY, 1897.

DON'TS

Now that the collecting season has opened for most of us the NEWS will again throw out a few hints in regard to what to do and what not to do, even if it may be open to the charge of harping on the subject too frequently. Don't put *Sphinx* pins through Lycænidæ, or *Lycæna* pins through Sphingidæ. Don't seal papers containing Lepidoptera, but make them uniform and neat, and iron each one before putting in the specimens. Don't send insects through the mail in a single box without packing, unless you wish them to arrive as fragmentary evidence of your foolishness. Don't send your insects to a specialist to name and expect him to spend a large amount of time on them and also pay all charges of expressage or postage both ways.

A BUFFALO GNAT NEW TO THE UNITED STATES.—On June 25, 1895, Prof. A. Goss called me to see enormous numbers of buffalo gnats on his horse, which was on the campus of the N. M. Agricultural College (Mesilla Valley, New Mexico). I recognized at once that it was a species I had not before seen, quite different from the common *Simulium occidentale* Towns. of the locality. Mr. Coquillett subsequently identified it as *Simulium ochraceum* Walker, which was until then only known from Mexico. A few small gnats, a species of *Sciara*, were also on the horse. The remarkable thing about this occurrence is that neither Prof. Townsend nor the writer ever met with this *S. ochraceum* in the Mesilla Valley, before or since, so it seems certain that we have only occasional swarms coming from a distance.—T. D. A. COCKERELL.

DEPARTMENT OF ECONOMIC ENTOMOLOGY.

Edited by Prof. JOHN B. SMITH, Sc.D., New Brunswick, N. J.

Papers for this department are solicited. They should be sent to the editor, Prof. John B. Smith, Sc.D., New Brunswick, N. J.

The Onion Maggot.—The question of dealing with root maggots has always been a troublesome one for two reasons. In the first place the creatures feed concealed, so that no sign of their presence is noticeable until the plant is so injured that in many cases it is beyond redemption. Secondly, applying insecticides which are sufficient to destroy the maggots is extremely expensive, and at the same time a little risky to the plants themselves. There has been a great deal of contradictory testimony in the matter, and materials that have, according to reports, proved perfectly satisfactory in the hands of some have been useless when applied by others. Mr. Slingerland has obtained excellent results with bisulphide of carbon against the cabbage maggot, and has also found a carbolic acid emulsion to be useful when properly applied and used in time. My own efforts have been directed as far as possible to the discovery of some means of cultivating or applying specific fertilizers or both, for either the prevention of injury or the destruction of the pest.

In 1893 one of the leading onion growers in New Jersey with many acres cultivated for the production of seed and sets in Cumberland County, wrote me that the pest had appeared on his place for the first time. He had grown onions on this farm for several years previously, and according to his own story had never had the slightest trouble, had never seen a maggot in his onions and had not lost a plant. I have every reason to believe that this statement was correct, for the man is a close observer and one of those who succeed in making farming pay, which, it will be admitted, is a sign of more than average intelligence under present conditions. At my suggestion fertilizers were employed, and the experience since 1893 is here presented in the belief that sufficient time has elapsed to make it possible to judge of its effectiveness. I will say that our correspondent keeps books. It is his object to discover just exactly how much each crop costs him and just how much profit he makes or what losses are sustained from every piece of land under cultivation. He therefore notes not only the cost of the materials that go into the land and the cost of cultivation, but also any circumstances that affect the value of the crop or add to the expense of raising. The notes, therefore, are reliable, as being made at the time and not being merely a recollection of what was done.

1893.—The onion sets were put in the field March 30, 1893. Maggots discovered at work on them May 2d. We at once commenced taking out with trowels all onions showing infestation by the withered appearance of the two lower leaves on the stem being careful to remove most

of the earth surrounding the infested plants. The plants and earth were placed in buckets and at the ends of the rows deposited in barrels which were afterward carted away and destroyed by fire. Then plowed a furrow about two inches dead away from each side of the rows with Allen's double wheel-hoe and applied 500 pounds kainit per acre broadcast and cultivated the soil level again. Result: No more maggots could be found afterward and no flies were seen among the plants as a second brood later in the season. The crop matured without further disturbance afterward.

1894.—Sets were planted in the field after treatment with sulphate of copper for smut, March 12th. April 18th found evidence of the maggot, and as I was then expecting them and watching every day for their appearance, I found them much earlier than the year before. I also found that on a plot that had been in Winter radishes and left on the ground over Winter, they were very much worse than elsewhere. This time no plants were removed, but furrows were again turned from the rows; 600 pounds kainit per acre was applied broadcast and again the soil was cultivated level. Results: No maggots could be found after three days and no flies were seen during the season. The crop matured without further damage.

1895.—Sets were planted, after treatment with sulphate of copper, April 5th. April 27th maggots were found in abundance, and kainit was applied after the usual turning away of the soil from the rows at the rate of 500 pounds per acre, broadcast. Results: No more maggots could be found a few days afterward, nor were flies seen in the fields. The crop matured in good shape without further disturbance from insects.

1896.—Sets were planted after the bath in sulphate of copper April 6th, and April 24th maggots had made their appearance. I at once applied the usual treatment of 500 pounds of kainit per acre, and in addition 100 pounds nitrate of soda. No further trouble was experienced on that plot and the crop which was harvested on the first of July was an abundant one.

The onions harvested in July were placed in shallow crates holding about one bushel each, and these were piled one above another in solid piles of some hundreds of crates in the open air, until it was time to reset for seed purposes. The crates were loosely packed together so that air could circulate throughout the mass and the onions became thoroughly dry. Before setting out they were rubbed together to remove all loose shells and dirt for inspection as to purity of color. September 30th these onions were set on a plot that had grown onion sets for the past fifteen years continuously and had never been infested with the maggots to this time. In three days from the setting of the seed onions maggots to the number of from 10 to 15 could be counted at work upon a single specimen. The onions were set in furrows three feet apart and had not been covered with soil when this discovery was made. We were better able, therefore, to apply the remedy, and we used 500 pounds of kainit on the

rows and then covered the onions and kainit at one and the same operation and awaited results. The balance of the field was prepared by applying the kainit in the rows before setting the onions. Results: No further trouble or damage was experienced from the maggot on those treated with the top dressing, and none was caused by them where the kainit had been applied in rows before setting. We did find several specimens on onions in this portion of the field, but they had no effect upon the appearance of the onions. The onions set one day were badly infested within three days, and the maggots must have either run their course without doing damage or died from the effects of the kainit. The plot has shown no signs of infestation from that time to this [January 5th] and is now apparently healthy and vigorous, promising for an abundant seed crop in 1897.

This experience is interesting in more ways than one. It might have been urged against the first year's work that the benefit was caused as much by taking out the infested onions and destroying them as by the application of the fertilizer, and the criticism would be a just one, but this process was not repeated in other years and the kainit was entirely relied upon. Onions are very largely cultivated in Cumberland County and there are plenty of fields in the immediate vicinity of the one on which the experiments were made where no measures were taken to check the development of the onion maggots. The county grows truck very largely, and radishes and cabbages are also badly infested by root maggots. The Fall experience is an extremely interesting one. It is evident from the history of the case that the eggs were laid upon the onions themselves, while they were in the crates. Evidently there must have been great numbers of the flies about, and the onions piled where they could get at them without any difficulty, attracted them. Just how long the eggs were present it would be hard to say, and so far as I am aware we have no data as to length of time that the eggs of Anthomyiids can remain unhatched after being laid. It would seem that if any of the maggots had hatched before the onions were set out, it must have been noticed when the tubers were cleaned to examine their color and suitability for the production of seed. The eggs must have been ready to hatch, however, since three days thereafter onions were taken out in which the maggots were already nearly one-quarter of an inch in length. It seems hard to escape the conclusion that the kainit was effective in this case and the more so, because where the onions were set in the ground to which kainit had been first applied, there was practically no trouble from the maggots. Of course it is impossible to say that in all localities and under all circumstances the same application would produce the same result, but at all events it would be very well worth the trying. In Cumberland County, where these onions were grown, the soil is very light; mostly sand with an admixture of clay and loam. In times past considerable marl has been used to better the condition of the land, but on the farm in question commercial fertilizers have been chiefly relied upon of late years. The

manure that is made upon the farm is used on the land; but none is bought, and the amount received each year is comparatively small, while tons of commercial fertilizers are habitually used for the various crops raised.

Oviposition by the Codling Moth.—Mr. Slingerland has recently called attention to the fact that there has been a general misapprehension as to the egg-laying habits of the codling moth, one of the commonest of our injurious species. The statements made many years ago have been repeated by all subsequent authors without very close investigation, and the results obtained by our spraying operations have seemed to confirm the usually accepted account. Mr. Slingerland states that Prof. Washburn, of Oregon, had previously observed the facts; but his observations had been overlooked. Mr. E. A. Schwarz, of Washington, recently called my attention to the fact that in the "Bericht der Kgl. Lehranstalt fur Obst, Wein & Gartenbau zu Geisenheim a Rh." pp. 22–25, 1894–1895, Mr. R. Goethe describes the oviposition of *Carpocapsa pomonella* on all parts of the apples. Specimens of the moth were secured July 16th, eggs were seen July 17th; but probably this was later than usual in the open. In his experience the larvæ ate through the skin at once on all parts of the fruit, and eat a little chamber just beneath the surface before they make their way to the core. From the eggs laid July 17th first larvæ were obtained July 28th. These experimens were made with insects in captivity. In the open air the first moths were found June 7th and the first larvæ were found in the apples June 25th. The note is rather a brief one, but it indicates that it is possible that this insect may have different localities and possibly the two broods may not act just alike in all respects.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Twenty-five "extras" without change in form will be given free when they are wanted, and this should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

Prof. SMITH has just completed a monographic revision of the genus *Acronycta*, and is in position to promptly name material in this genus for the privilege of retaining such species as may be new. Address Prof. John B. Smith, New Brunswick, N. J.

AT the annual commencement on March 24th last, the Western University of Pennsylvania, at Pittsburgh, conferred the honorary degree of Doctor of Science upon Dr. George H. Horn. We are also glad to state that Dr. Horn is gradually recovering from an almost complete paralysis of the left side, with which he was stricken in December last, and is regaining the use of the limbs affected.

MASSACHUSETTS AGRICULTURAL COLLEGE.—Zoölogical Department. —I wish to obtain as many specimens as possible of the genera *Chionaspis* and *Pulvinaria* from all parts of the world, as two of my assistants, Prof. R. S. Lull and Mr. R. A. Cooley, are making thorough and exhaustive studies of these genera for the purpose of preparing complete monographs of them. Prof. Lull will take the genus *Pulvinaria* and Mr. Cooley the genus *Chionaspis*. and the work will be carried on in my laboratory under my oversight. I am under great personal obligations to Prof. T. D. A. Cockerell, who is one of our highest authorities on the Coccidæ of the world, for valuable hints and assistance in this matter. If you will be kind enough to send specimens to me from your locality I shall be very grateful, and will request my assistants to return a named set if you so desire. If you are not sufficiently familiar with the Coccidæ to distinguish these genera, please send all Coccids unknown to you and we will separate them.—C. H. FERNALD.

EXTRACT from "Rules for Regulating Nomenclature with a view to Secure a Strict Application of the Law of Priority in Entomological Work" compiled by Lord Walsingham and John Hartley Durrant.

The type of a species belongs to one of the following categories:

(1) Type (described from a unique specimen or from a single specimen selected from a series).

(2) Type (= type ♂ + type ♀ described from a single specimen of each sex).

(3) Co-types (described from more than one specimen, no single one beieg selected as the type. The type = the sum of the co-types).

Each of the remaining specimens of a series from which the type was selected is called a Paratype.

A specimen subsequently named by the author after comparison with the type is called a Metatype.

A specimen named by another than the author, after comparison with the type, is called a Homotype.

A specimen collected in the exact locality whence the type was obtained is called a Topotype.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. **Please put date of capture and exact locality on each specimen.** Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Entomological Literature.

Under the above head it is intended to note such papers received at the Academy of Natural Sciences of Philadelphia pertaining to the Entomology of the Americas (North and South). Articles irrelevant to American entomology, unless monographs, or containing descriptions of new genera, will not be noted. Contributions to the anatomy of insects, however, whether relating to American or exotic species will be recorded.

1. THE BUTTERFLIES OF NORTH AMERICA by W. H. Edwards. Third series, part xvii. Boston: Houghton, Mifflin & Co., 1897.—Contains figures and descriptions of various species of *Chionobas*, one of them (*peartiæ*) being new to science. The three plates in this number are superb examples of what such illustrations should be, and are of great scientific value, especially the figures representing the various larval stages of a number of the species treated. This number alone contributes much that is new in regard to life-histories, especially as so little has hitherto been known of the early stages of the species in the genus. The part completes volume three of this truly representative work, and we sincerely hope the work will not end here. We have absolutely nothing but praise for such a work, but have sometimes been disappointed on account of its fragmentary character, probably unavoidable. Very often the species one wants to know about is not treated, and there is great need of a work in this country covering all the species in each genus, or at least contributions toward it. Mr. Edwards has probably more nearly approached this result in *Chionobas*. If the work is continued, it seems to us the most important thing the author could do would be to give figures of his own species not hitherto illustrated, especially in the genus *Argynnis*.—H. S.

2. BRITISH AND EUROPEAN BUTTERFLIES AND MOTHS. By A. W. Kappel and W. Egmont Kirby. This is a quarto volume of 247 pages and 30 chromo-lithographic plates containing many figures. The plates are good illustrations of the process and are quite satisfactory and answer well for purposes of identification. The work does not include all the European species, but most of those inhabiting central Europe have been dealt with, and nearly all those of the British Isles. There is an introduction treating of structure, collecting and technique. The work will be found a very useful one, especially for the beginner.—H. S.

3. BRITISH BUTTERFLIES, being a popular hand-book for young students and collectors. By J. W. Tutt; octavo 465 pages and nine plates. —This is an up-to-date work and contains the recent and generally-accepted schemes of classification. The general chapters on the "Egg," "Caterpillar," "Chrysalis" and "Imago" will give the young student the clues he requires to follow up the more advanced branches of the study. There are chapters on "Variation" and "Hybernation" as well as notes on the senses of butterflies. This is one of the best new books on an entomological subject we have lately seen, and its talented author is to be greatly congratulated. The chapters on the practical work of, and apparatus for, collecting, killing, setting and preserving insects are

based not only on the author's twenty-five years' experience of active field work, etc. We would think from the fig. of net frame, on page 89, that it was the style used by Noah when he rounded up the insects into the ark before the flood. We really wished this book on account of our regard for the author, but had trouble to get it on account of the business care (?) of the publishers. They had the cheek to send us about 100 circulars to distribute for them, and then when we sent an order for a copy of the book they wrote back that they wished cash in advance. The Academy and the American Entomological Society are not used to such treatment.—H. S.

4. DIE GATTUNGEN DER SPHEGIDEN. Von Franz Friedr. Kohl. [Extract from Band xi, Heft 3–4 of the Annalen des k. k. Naturhistorisches Hofmuseums, Wien, 1896].—Perhaps no period in the past has been so marked for the activity of entomologists as is to-day. This is especially true of the hymenopterists, some of whom have been turning out tomes of prodigious size and worth. One of the very latest memoirs in this line is the above named, a work of 283 pages, seven lithographic plates and eighty-eight text figures, giving it such an air of completeness that one almost feels convinced that the classification of the Sphegidæ (*sens lat.*) should be no longer a mooted question.

A history of the genera of fossorial wasps (Sphegidæ) occupies pages 235–245, and is in itself a valuable contribution to the study. Then follows a very comp'ete and concise synoptical table of the genera and their principal groups. The descriptions are unusually full, and usually accompanied by one or more text figures. The genus *Crabro* is treated at length and a synoptic table of the groups of species given, as is likewise done with other genera which are divisible into groups and subgenera. A chapter on the natural groups of the Sphegid genera completes the text. Herr Kohl separates the family into: 1, Chief groups; 2, Subgroups; and 3, Supergenera (Nebengruppen); "the latter either *a* formed of sharply-defined genera or *b* of subgenera." Nine groups of genera (Gattungsgruppe) are recognized, viz.: 1, *Crabro;* 2, *Pison;* 3, *Miscophus;* 4, *Larra;* 5, *Astata;* 6, *Bembex;* 7, *Alyson;* 8, *Philanthus;* 9, *Sphex;* 10, *Ampulex;* 11, *Pemphredon.* The author's knowledge of the fossorial Hymenoptera and standing as an investigator assure the above classification acceptance among his fellow-workers.

Herr Kohl has not showed such a tendency of massing names under one head as might have been expected from his past work. *Eucerceris* is given generic rank, and we are glad to record similar action with *Trachypus*, *Aphilanthops*, *Microbembex* and *Anacrabro*. Of the other American genera *Dienoplus* is rightly placed as a synonym of *Gorytes*. *Niteliopsis* is still held to be the same as *Solierella*, probably because he has never seen specimens of the former. The author is quite naturally in doubt about *Larropsis* Patton, described as having the second submarginal cell petiolated and of which *Larrada tenuicornis* was selected as the type, a species which has not a petiolated submarginal and is a true *Ancistromma*.—W. J. F.

5. CATALOGUS HYMENOPTERORUM, . . . , by Dr. G. C. de Dalla Torre, vol. viii, Fossores (Sphegidæ), 8vo, Leipzig, 1897, pp. 1–749.—This praiseworthy work is nearing completion. With the appearance of the present volume but four volumes remain to be published. Vol. viii is brought down to the Zoological Record for 1894, and the Zoologischer Anzeiger (Jahrg. xviii), 1895. Considerable lumping of genera is evident, but as the work is bibliographic and not systematic, this must not be taken too seriously, inasmuch as lumping is convenient in bibliographic works, especially where some confusion exists in regard to the disposition of certain species to their proper genera. Therefore one is not surprised to find *Brachycistis*, *Chyphotes*, *Ephuta* Say (which, by the way, has priority over *Sphærophthalma*, having been proposed for the species of *Mutilla*, with round eyes, in 1836) and *Myrmosa* placed under *Mutilla*. This has consequently led to the renaming of several of our species, for instance *Brachycistis atratus* Blake becomes *Mutilla agama* D. T., and *Myrmosa parvula* Fox is to be *Mutilla antisemitica*—how the author knew this species to be a Jew-hater he does not state—and many other changes occur. It is our opinion that it would have been better to have not changed any of the preoccupied names unless the author wishes to advance his system of lumping to the claims of a systematic work, in which case he will probably find but few adherents. It is difficult to comprehend that *Myzine caroliniana*, *confluens*, *dubiosa*, *frontalis*, *hyalina* and *texana* should be separated generically from *M. interrupta*, *obscura* and *sexcincta*, which are placed under *Plesia*, a name which we had supposed was long determined as synonymous with *Myzine*. Two species are confused under *Crabro texanus* on p. 631, as *Entomognathus texanus* Cress. is not the same as *Crabro texanus* Cress.

The work is of extreme value from a bibliographic standpoint, and notwithstanding the idiosyncrasy of classification will be found indispensible to hymenopterists.—W. J. F.

6. PROCEEDINGS OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1897, pp. 135–141.—New fossorial Hymenoptera from New Mexico, T. D. A. Cockerell and W. J. Fox.

7. THIRTY-FOURTH ANNUAL REPORT OF THE MASSACHUSETTS AGRICULTURAL COLLEGE. Boston, January, 1897.—Report of the Entomologist, C. H. Fernald.

8. SECOND ANNUAL REPORT OF THE ENTOMOLOGIST of the State Experiment Station of the University of Minnesota to the Governor for the year 1896. By Otto Lugger. Delano, 1896, x, 244 pp., 187 figs., 16 pls. The first 43 pages deal with a number of familiar insect pests. The remainder of the volume is an extensive treatise on arachnid and insect parasites of man and domesticated animals.

9. THE ANNALS AND MAGAZINE OF NATURAL HISTORY. London, March, 1897.—New species of Hymenoptera from Central America, P. Cameron.

10. BIOLOGISCHES CENTRALBLATT. Leipsic, March 1, 1897.—The formation of species and relationship among butterflies according to G. H. T. Eimer, Dr. Gräfin M. von Linden.

11. INSECTOS DE COSTA RICA pequeno coleccion arreglada por J. Fid. Tristan, Entomologo del Museo [Nacional]. San José de Costa Rica, 1897.

12. COMPTES RENDUS. SOCIETE DE BIOLOGIE. Paris, March 6, 1897. —A dangerous Acarine from Mauritius, *Holothyrus coccinella* Gervais, P. Megnin.

13. COMPTES RENDUS. L'ACADEMIE DES SCIENCES. Paris, March 1, 1897.—On the larva of *Thrixion halidayanum* Rond., a dipterous insect of the tribe Tachininæ, parasite of *Leptynia hispanica* Bol., an orthopterous insect of the tribe Phasmidæ, larval stages and biology, J. Pantel. ——March 15.—On some anatomical peculiarities observed in the larva of *Thrixion halidayanum*, J. Pantel. On the relations of *Antennophorus uhlmanni* Haller with *Lasius mixtus* Nyl., C. Janet, fig.

14. PROCEEDINGS OF THE BOSTON SOCIETY OF NATURAL HISTORY, xxvii, 14, March, 1897.—On the color and color-patterns of moths and butterflies, A. G. Mayer, 10 pls. Also published in Bulletin of Museum of Comparative Zoology at Harvard College, xxx, 4.

15. VERHANDLUNGEN DER K. K. ZOOLOGISCH-BOTANISCHEN GESELLSCHAFT IN WIEN, xlvii, 1, March 1, 1897.—Hemiptera cryptocerata, A. L. Montandon. *Carcinocoris*, a new hemipterous genus, and remarks on the raptorial legs of insects, A. Handlirsch, figs.

16. BULLETIN DES SEANCES. SOCIETE NATIONALE D'AGRICULTURE DE FRANCE, lvi, 10, December, 1896. Paris.—The caterpillar of *Zeuzera æsculi* causing ravages in Morocco, M. Laboulbene.

17. THE JOURNAL OF THE CINCINNATI SOCIETY OF NATURAL HISTORY, xix, 2, March 24, 1897.—An Odonate nymph from a thermal spring, D. S. Kellicott, figs. Catalogue of the Odonata of Ohio, part iii, id.

18. BOLETIM DO MUSEU PARAENSE DE HISTORIA NATURAL E ETHNOGRAPHIA, i. 1. Para, Brazil, September, 1894.—Arachnological studies relating to Brazil. Revision of Brazilian Territelariæ, Dr. E. Goeldi.—— 2, April, 1895.—Ant fauna of Brazil, with catalogue of the species, Dr. A. Forel. Myriapods of Brazil, Dr. E. A. Goeldi.——3. June, 1896.— Hosts of ants and termites of Brazil, E. Wasmann.

19. THE PROCEEDINGS OF THE LINNEAN SOCIETY OF NEW SOUTH WALES., xxi, Sydney. 82. Sept. 22, 1896.—On the Australian *Clivinides* (fam. Carabidæ), T. G. Sloane. On the bag-shelters of lepidopterous larvæ of the genus *Teara*, W. W. Froggatt.——83. Dec. 22, 1896.—On the Australian Bembidiides referable to the genus *Tachys*, with the description of a new allied genus *Pyrrotachys*, T. G. Sloane.

20. THE AMERICAN NATURALIST. Philadelphia, April, 1897.—The Malpighian tubes of the Orthoptera, L. Bordas (transl.). Notes on dragonflies, D. S. Kellicott (partial reprint from The Agric. Student, iii).

21. NATURE. London, March 25, 1897.—The introduction of beneficial insects into the Hawaiian Islands, R. C. L. Perkins.

22. BULLETIN DE LA SOCIETE NATIONALE D'ACCLIMATATION DE FRANCE. Paris, November, 1896.—Rearing silk-worms in Russia on *Scorzonera hispanica*, O. Tikhomirova. Apiculture and sericiculture in Hungary, S. Borzeky, P. Bezeredj.

23. MONOGRAPHIE DER ORDNUNG THYSANOPTERA von Heinrich Uzel. Mit 10 Tafeln und 9 Text-bildern. Königgratz, 1895, 4to, 481 pp.—A magnificent work on the group of Thrips insects. It is written in the Bohemian language, but the descriptions of species and other systematic groups are accompanied by German versions, and of the other parts German resumés are given. The first, or systematic, part of the volume, of 281 pages, describes all the species known to the author, 138 in number, distributed among 36 genera. Of these 138, 117 are European, many being now first described. The second (Paleontological) part, 16 pages, summarizes what is known of these insects in past time. The third part, 34 pages, is devoted to the anatomy, the fourth, 20 pages, to the development. A consideration of habits and habitats forms the fifth (biological) part of 18 pages. The sixth (economic) part, 20 pages, treats of the plants affected by the Thysanoptera, the seventh (historical) part, of 62 pages, comprises a complete bibliography for the Order with abstracts of the contents of each paper. Full indices complete the volume.

24. U. S. DEPARTMENT OF AGRICULTURE, DIVISION OF ENTOMOLOGY. Technical series, No. 5.—A study in insect parasitism: A consideration of the parasites of the white-marked tussock moth, with an account of their habits and interrelations, and with descriptions of new species. By L. O. Howard, entomologist, Washington, 1897.

25. ID. Circular No. 18, second series (revision of No. 14), Feb. 4, 1897.—The Mexican cotton-boll weevil (*Anthonomus grandis* Boh.), L. O. Howard, figs.——No. 19. March 5, 1897.—The clover mite (*Bryobia pratensis* Garman), C. L. Marlatt, figs.

26. Report of the Entomological Department of the New Jersey Agricultural College Experiment Station, by John B. Smith, Sc.D., for the year 1896. Trenton, N. J., 1897. Pp. 431–563, 16 figs.

27. THE CANADIAN ENTOMOLOGIST. London, Ont., April, 1897.—Synonymical and descriptive notes on North American Orthoptera, S. H. Scudder. A remarkable appearance of *Catocala insolabilis*, A. J. Snyder. Description of the structural characters of the larva of *Sibine fusca*, with notes on the four known larvæ of *Sibine*, H. G. Dyar. Description of the larva and pupa of *Aulax nabali*, T. W. Fyles. A new species of *Ancyloxypha*, G. H. French. The Coleoptera of Canada—

xxii. The Cerambycidæ of Ontario and Quebec, H. F. Wickham, figs. The lost *Ledra*, H. Osborn. New Coccidæ found associated with ants, G. B. King and T. D. A. Cockerell. *Argynnis idalia* in New Brunswick, J. Fletcher. On rearing dragonflies, J. G. Needham, fig.

28. PROCEEDINGS OF THE CALIFORNIA ACADEMY OF SCIENCES (2), vi. San Francisco, March 1, 1897.—Coleoptera of California, supplement ii, G. H. Horn. The Oedemeridæ of Boreal America, id. New Mallophaga—i,—with special reference to a collection made from maritime birds of the bay of Monterey, California, V. L. Kellogg, 14 pls.;—ii,—from land birds, together with an account of the Mallophagous mouth-parts, id., 14 pls. North American *Apterygogenea*, H. Schött, 3 pls.

29. ANNALES DE LA SOCIETE ENTOMOLOGIQUE DE BELGIQUE, xli, 2. Brussels, March 24, 1897.—The insects of Bernissart, A. Lameere and G. Severin, figs. ——3. March 31.—The coxal glands of *Lithobius*, V. Willem, fig.

30. PSYCHE. Cambridge, Mass., April, 1897.—A new hypothesis of seasonal dimorphism in Lepidoptera—i, A. G. Mayer. Notes on New England Acrididæ—iii. Oedipodinæ—iii, A. P. Morse. Notes on new Coccidæ, T. D. A. Cockerell. The larval stages of *Arctia anna* Grote, H. G. Dyar. Pink locustarians, McNeill on Tryxalinæ, A genus of Gryllidæ hitherto unrecorded from the U. S., S. H. Scudder.

31. JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY, v, 1, March, 1897.—Life-histories of the New York slug caterpillars, vii–ix, H. G. Dyar, 2 pls. The immature stages of *Diabrotica soror*, R. W. Doane. On the larvæ of certain sawflies (Tenthredinidæ), H. G. Dyar. The correct title: *Noropsis elegans*, A. R. Grote. Descriptions of two new Sminthurids, N. Banks. Notes on *Melitta satyriniformis*, *Catocala elda*, W. Beutenmüller. Preliminary handbook of the Coleoptera of northeastern America, id. Some Syrphidæ from Long Island, N. Banks. A new *Aleurodes* found on *Aquilegia*, T. D. A. Cockerell. Intelligence shown by caterpillars in placing their cocoons, W. T. Davis. The classification of the Saturniides, A. R. Grote. *Oeta floridana* Neumoegen, H. G. Dyar. Tenacity of life in adults of *Cryptorhynchus lapathi*, F. M. Webster.

32. BULLETIN No. 8. New Series. U. S. Dep't of Agriculture, Division of Entomology.—Some little-known insects affecting stored vegetable products, F. H. Chittenden. Washington, 1897.

33. THE LARVÆ OF THE BRITISH BUTTERFLIES AND MOTHS by (the late) Wm. Buckler, edited by Geo. T. Porrit. Vol. vii. The first portion of the Geometræ. London: Printed for the Ray Society, MDCCCXCVII. Pp. xv, 176. Pls. cvi–cxxvii. With a list of parasites bred from larvæ or pupæ of the species included in this volume, G. C. Bignell.

34. EXPERIMENT STATION RECORD, viii, 6. U. S. Dep't of Agriculture. Washington, 1897.—Summaries of papers on economic entomology.

35. BIBLIOTHECA ZOOLOGICA, heft 20, 3. Stuttgart, 1897.—Zoological results of the expedition to Greenland, under the direction of Dr. von Drygalski, sent out by the Gesellschaft für Erdkunde of Berlin, from the collections of Dr. Vanhöffen: v. Greenland spiders, Dr. H. Lenz, figs.; vi. Greenland mites, Dr. P. Kramer, figs.

36. CATALOGO SISTEMATICO de toda la Fauna de Filipinas conocida hasta el presente, y a la vez el de la Coleccion Zoologica del Museo de Pp. Dominicos del Colegio—Universidad de Santo Tomas de Manila . . . por el R. P. Fr. Casto de Elera. Vol. ii. Articulados. Manila, 1895. Tracheata 540 pp.

37. THE ROYAL NATURAL HISTORY, edited by Richard Lydeker. London and New York, Frederick Warne & Co. Vol. vi, 1896.—Invertebrates. Hymenoptera and Lepidoptera, F. O. Pickard-Cambridge. Coleoptera, Neuroptera, Orthoptera and Rhynchota, C. J. Gahan. Diptera, Arachnida and Myriapoda, R. I. Pocock.

38. PROCEEDINGS OF THE DAVENPORT ACADEMY OF NATURAL SCIENCES, vi. 1897. *Pp. 179-274.—Revision of the Truxalinæ of North America, J. McNeill, 6 pls.

39. BULLETIN 121. New Jersey Agricultural Stations, March 10, 1897. —The harlequin cabbage bug (*Murgantia histrionica*) and the melon plant louse (*Aphis gossypii*), J. B. Smith, figs.

40. THE ENTOMOLOGIST'S MONTHLY MAGAZINE. London, April, 1897. —Notes on Coccidæ from the Royal Gardens, Kew (concl.), E. E. Green, with additions by R. Newstead. Hints on collecting aculeate Hymenoptera (cont.), E. Saunders. The direct photographic enlargement of entomological specimens, T. A. G. Strickland, fig.

41. THE ENTOMOLOGIST. London, April, 1897.—On the subordinate influence of climatal conditions in deciding the morphological characters, with special reference to the Rhopalocera, W. Harcourt-Bath. The probable causes of the decadence of British Lepidoptera, G. H. Conquest, T. B. Jeffreys.

42. THE KANSAS UNIVERSITY QUARTERLY, Series A, vi, 1. Lawrence, Kan., January, 1897.—Diptera Brasiliana, part iv, S. W. Willlston.

43. The spruce gall-louse (*Chermes abietis* Linn.), C. H. Fernald and A. R. Cooley, 12 pp., 2 pls. Place and date of publication not indicated.

44. PROCEEDINGS OF THE INDIANA HORTICULTURAL SOCIETY, 1896 [Extract from].—Insects in general and the Orthoptera of Indiana in particular, W. S. Blatchley.

45. THE NATURALISTS' JOURNAL, vi, 57. Huddersfield, March, 1897. —[Synopsis of] British Orthoptera, Anon., 1 pl.

46. General Index to the seven volumes of Insect Life, 1888-1895.—U. S. Dep't of Agriculture, Division of Entomology. Washington, 1897.

47. STETTINER ENTOMOLOGISCHE ZEITUNG, 57 Jahrgang, 1896.—Contribution to the knowledge of the Microlepidoptera fauna of the Danish

West Indies—ii, W. von Hedemann. Travels of E. Simon in Venezuela, Curculionidæ iii, J. Faust. Two hermaphrodites of *Bufalus piniarius*, J. Griebel.

48. BIOLOGIA CENTRALI-AMERICANA. Part cxxxiii, London, February, 1897.—Arachnida-Araneidea, pp. 225–232, pl. xxiii, O. P. Cambridge. Coleoptera, vol. iii, pt. 1, pp. 585–608, pl. xxvi, G. C. Champion. Lepidoptera Heterocera, vol. ii, pp. 337–360, pls. lxix–lxxii, H. Druce. Orthoptera, pp. 217–224, H. de Saussure.

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Doings of Societies.

PHILADELPHIA, April 13, 1897.

A stated meeting of the Feldman Collecting Social was held at the residence of Mr. Frank Haimbach, 1309 Allegheny Ave., on the above date. Members present: Messrs. Fox, Haimbach, F. Hoyer, Seiss, H. W. Wenzel, Johnson, Boerner, A. Hoyer, Laurent, Castle and Schmitz. Honorary members: Dr. Henry Skinner and John B. Smith. Meeting called to order at 9.10 P.M., ex-president Laurent presiding. Minutes of the previous meeting read and approved.

A communication was read from Dr. H. G. Griffith, president of the Social, who is at present sojourning in the South, dated Lake Mary, Fla., April 1, 1897, in which he gives some of his experiences in collecting.

A card was read from Dr. Horn expressing his regrets that he could not be present at the meeting, but that he was improving rapidly and expected to be about again shortly.

Prof. Smith exhibited males and females of *Arctia vittata*, *A. phalerata* and *A. nais*. He pointed out the means for recognizing these species. In *nais* the entire costa is narrowly black. The two other species having it yellow almost to the apex; *vittata* has the hind wings and abdomen yellow; *phalerata* has the hind wings red, at least at the base, the abdomen being also, in most cases, more red than yellow. The speaker stated that these differences were pointed out by Mr. Dyar, and they hold in the large series of specimens that have been examined. Those who have bred the different forms claim that the larvæ of two species, at least, are different.

Mr. Johnson exhibited specimens of *Midas tibialis* captured by Mr. Herman Hornig; also *Midas audax*, both of which specimens were captured near Philadelphia, and *Midas fulvifrons*, collected at Avalon, N. J., July 29, 1896. The speaker further drew attention to a series of *Midax pachygaster* (♀) and *Midax incisus* (♂) from Florida and Georgia, showing that the two species are probably identical.

Dr. Skinner remarked that recent literature on parasites affecting domestic animals spoke of *Demodex folliculorum hominis* as being the cause of the disease of the human face known as comedones or black-heads, whereas medical men and works on dermatology say that they have nothing to do with the disease, but only abide there incidentally. One entomological work says "The variety occurring on man (*hominis*) producing the little specks or black-heads so frequent on the face." Another work says "Face-mites: black-heads (Dermodecidæ). Face-mites live in the sweat-glands at the roots of hairs and in diseased follicles in the skin of the human face, chiefly about the nose, eyes and chin, *where they cause the well-known comedones or black-heads.*" Comedones are retained sebaceous material assuming the form of the follicles and having a speck of accumulated black dirt at the end. It is very doubtful whether the parasite has anything to do with their causation in man, and they may be beneficial in eating up the comedones, although they are not numerous in the face and are not easily found.

Further discussed by Drs. Smith and Skinner.

Mr. Laurent exhibited a specimen of *Catocala habilis*, which he said differed from the normal form (which was shown for comparison) in the markings, the difference noted being the absence of the white bands and black lines on the wings, always seen in the normal form.

A motion being regularly made and seconded to appoint a committee with power to act, to communicate with the Newark, New York and Brooklyn Societies to arrange for a suitable place of meeting for the annual fourth of July outing. The chairman appointed Messrs. John B. Smith and H. W. Wenzel on said committee, with the request to report at next meeting.

No further business being presented the meeting adjourned at 10.45 P.M. The members were then pleasantly entertained by mine host Haimbach with a number of well-chosen musical selec-

tions, both instrumental and vocal, the selections were all artistically rendered and much appreciated, Mr. Haimbach contributing his share by acting as accompanist on the piano in a manner for which he was deservedly complimented.

The next adjournment was to the annex, which was conducted with the usual success.

THEO. H. SCHMITZ, *Secretary.*

The Entomological Section

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

PROCEEDINGS OF MEETINGS.

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

CATOCALA JAIR—New species from Florida.

By Dr. HERMAN STRECKER.

♂♀.—Expands about 1⅝ inches. Head and thorax mixed brown and ashen, dark lines across and edge the collar. Abdomen ochre yellow. Primaries ground color ashen with distinct, black, transverse, anterior and posterior lines, neither of which are toothed or serrated, but only a little irregular, the latter beyond the middle of the wing bends inwards towards the costa, where it ends in a small, distinct, square black spot. The basal area reddish brown, median area has a transverse shade of same color in which is reniform and subreniform, the first obscure the last distinct and round. The space between the black transverse posterior line and the gray submarginal is of the same dark reddish brown, subapical dash also brown. Wings edged with a black line, fringe dark brown. Inferiors yellow, with a broad, black, aborted, marginal band, and a spot near anal angle; under surface is yellow with black bands as in *C. amica.*

Described from thirty examples which were taken the last season in Florida.

Except *C. messalina* and *C. amica*, this is the only yellow *Catocala* lacking the mesial band of inferiors, its place is nearest to *C. amica*, but its appearance is most curious, looking as though the inferiors of *amica* had been attached to the superiors of some other species. The primaries are very much broader than in *amica* and the style of marking, though the color is deeper and brighter, is much as in *C. formula* Grote (Proc. Ent. Soc. Phil. vi, plate iv, fig. 5, I give this reference so as to avoid confusion as *formula* has been knocked around since under other names).

Had I seen but one of this species never would I have ventured to describe it as new, but having thirty examples under my eyes all as like as a row of peas in a pod I felt no hesitation; it is one of those that the most untutored would distinguish at a glance from any of the other species; with it was taken numbers of *C. micronympha*, *C. amica*, *C. muliercula* and a curious variety of *C. ilia*.

In the February number "Can. Ent." (vol. xxix), p. 39, the *Argynnis* described by W. H. Edwards in "Trans. Am. Ent. Soc. v, p. 204, under the name of *carpenterii* has again been re-christened as *charlottii*. The synonymy of this insect now stands thusly:

Argynnis leto Behr., Cal. Acad.
" *carpenterii* W. H. Edwards, Proc. Am. Ent. Soc.
" *charlottii* W. Barnes, Can. Ent.

The last name comes close to that of *charlotta* given by Haworth in Lep. Brit. 1803, to a *Melanotic* aberrant of *A. aglaija*, but all this matters little as the poor thing, despite all the accumulated rubbish, will still remain *A. cybele* var. *leto*.

SOME NOTES AND DESCIPTIONS OF NEW LEPTIDÆ.

By C. W. JOHNSON.

In studying the species of the genus *Dialysis* my attention was called to the incongruity that exists in the venation of *D. elongata* and *D. rufithorax* Say. It will no doubt be of interest to show more fully the remarkable variation in the venation of the wings referred to by Prof. C. H. Tyler Townsend (Proc. Wash. Ent. Soc. ii, 118) and by Dr. Williston (Kan. Univ. Quarterly, iii, 263). *D. elongata* (fig. 1) has four posterior cells, but there is usually a slight angle to the discal cell, and in one specimen (on one wing) a stump that suggests the origin or remains of the missing vein.

Fig. 1.

In one specimen (♂), on one wing only, there is a cross-vein that divides the discal cell into two unequal parts (this vein is indicated by a dotted line). In another specimen (on one wing) the first and second branches of the fifth longitudinal vein are not separated by a cross-vein, but united

thus >< at the outer end of the discal cell. The venation of *D. rufithorax* is perhaps the most variable of any known species. The vein that separates the fourth and fifth posterior cell is as often incomplete (fig. 2) as it is complete (fig. 3). While in three specimens one wing has the former and the other the latter character. Two or three specimens show another peculiar variation

Fig. 2.

Fig. 3.

(also shown in fig. 2) in having stumps of veins projecting from the third longitudinal vein, one near the anterior branch, and two from the branch, one near the junction the other near the tip; there is also one on the first branch of the longitudinal vein about half way between the discal cell and the posterior margin. The above facts will, as has already been shown by Dr. Williston, cause the abandonment in this case of "four posterior cells" as a generic character.

Dialysis elongata Say.

Stygia elongata Say, Jour. Acad. Nat. Sci. iii, 41, 1823; Compl. Wr. 11, f. 5.
Anthrax elongata Wiedemann, Auss. Zw. i, 315, 1828.
Lomatia elongata Wied., Auss. Zw. i, 561; tab. ii, f. 6.
Xylophagus americanus Wied.? Walker, List, etc., i, 128, 1848.
Dialysis dissimilis Walker, Dipt. Saund. iv, 1856.
Triptotricha dissimilis (Walk.) Osten Sacken, Berl. Ent. Zeit. 1883, 295.
Agnotomyia elongata (Say), Williston, Entom. Amer. ii, 106, 1886.
Dialysis dissimilis (Walk.) Williston, Kans. Univ. Quart. iii, 265, 1895.
Dialysis elongata (Say) Williston, Kan. Univ. Quart. iii, 265, 1895.

From descriptions, a study of Walker's type (through the kindness of Mr. E. E. Austen), and an examination of a large amount of material, as the species is quite common in the vicinity of Philadelphia, I can only arrive at the above conclusion as to synonymy. Say described a male, while Walker's specimen, the type of the genus, is a female.

Dialysis fasciventris Loew.

Triptotricha fasciventris Loew, Berl. Ent. Zeit. 1874, 380.

♂.—Length 8 mm. Head black; face, frontal triangle and occiput covered with a silvery white pubescence, mouth-parts and the first and second joints of the antennæ yellowish, third joint and style brown, ocelli reddish. Thorax black, shining, with minute yellow hair, sternum with silvery pubescence, humeri and the outer half of the scutellum brownish.

Abdomen black, with prominent yellow hair; first, second and third segments with a wide posterior band of yellow, the remaining segments with a narrow border, which is somewhat obscure on two last. Venter, first, second, third and fourth segments yellowish, with the basal half of the second, third and fourth more or less blackish, the last three segments black, hypopygium reddish, base and tips of the claspers black. Legs yellowish, tip of the anterior and middle tibiæ and the entire tarsi black, tip of the posterior femora, the entire tibiæ and the tip of the first and the other joints of the tarsi black. Wings tinged with blackish, which is more conspicuous beyond the discal cell, and a band that extends across the wing at the base of the discal cell, costal cell and base of the wing tinged with yellow; halteres blackish, base yellowish.

♀.—Length 9 mm. Head black, antennæ entirely yellow, mouthparts brownish. Thorax yellow, shining, translucent, with very minute yellow hairs; pleuræ yellow, with a large, shining, brownish black spot; scutellum yellow, translucent. Abdomen yellow, sparsely covered with prominent yellow hair, base of the first segment narrowly margined with black; second, third and fourth with a wide basal band of black, the bands occupying fully one-third of the segment and a uniform width throughout, fifth segment black, with a posterior band of yellow; sixth and seventh segments yellow, with two longitudinal lines of black, basal half of the ovipositor black, terminal portion yellow; venter yellow, base of the fourth and fifth segments blackish, sixth and seventh black, with a posterior band of yellow. Legs the same as the male, except that the black portions have a more brownish color.

Two specimens (♂ ♀) collected at Cranberry, Mitchell County, North Carolina, June 10, at an altitude of 3250 feet by Mr. H. W. Wenzel. I had looked upon *D. fasciventris* as the female of *D. elongatus*, but through the kindness of Mr. Samuel Henshaw I learn that Loew's type has five posterior cells. As the male has never been described, and as the original description is probably inaccessible to many I here redescribe the species.

Chrysopila griffithi n. sp. ♂♀.—Length 5–6 mm. Face, front, vertex and occiput grayish brown, vertical angles with minute black hairs, mouthparts, antennæ and arista reddish brown. Thorax brownish, with an obsolete dorsal stripe of a darker shade; hairs yellowish, sparse, pleuræ with blackish hairs. Abdomen brownish black, sparsely covered with yellowish or whitish hairs. Legs yellow, femora of a more reddish color; halteres yellow, tips black. Wings hyaline, slightly tinged with yellow, stigma and cross-veins clouded with brown. In two specimens the longitudinal veins are also slightly clouded.

Ten specimens, Boykins, Va., June 10: Hertford County, North Carolina, June 9, 1895; Tifton, Ga., September 3 and 25, October 5 and 16, 1896 (Dr. Hough).

This species is dedicated to my friend, Dr. H. G. Griffith, who assisted me in its capture.

Chrysopila modesta Loew, Centur. x, 14, Texas.

One specimen, Elkhart, Ind. (R. J. Weith).

Chrysopila rotundipennis Loew, Centur. i, 19, Georgia.

Several specimens of this species were collected in Fairmount Park, Philadelphia, July 14, 1891; Pendleton, N. C., June 7; Hertford County, North Carolina, June 9; Boykins, Va., June 10, 1895.

Symphoromyia hirta n. sp. ♂.—Length 7 mm. Head black, face blackish gray, with a silvery white reflection, vertical triangle black, with long black pile; palpi and proboscis black, palpi with long whitish pile, first joint of the antennæ black, with long black pile, second and third joints and arista dark brown. Thorax and scutellum bluish gray with long, black pile, dorsum of the thorax with three longitudinal black stripes, which are attenuated posteriorly. Abdomen and venter bluish gray, with long, brownish and yellow pile; femora and tarsi black, tibiæ dark brown, tips of the femora yellow; halteres yellow. Wings hyaline, slightly tinged with brown, stigma and base yellowish.

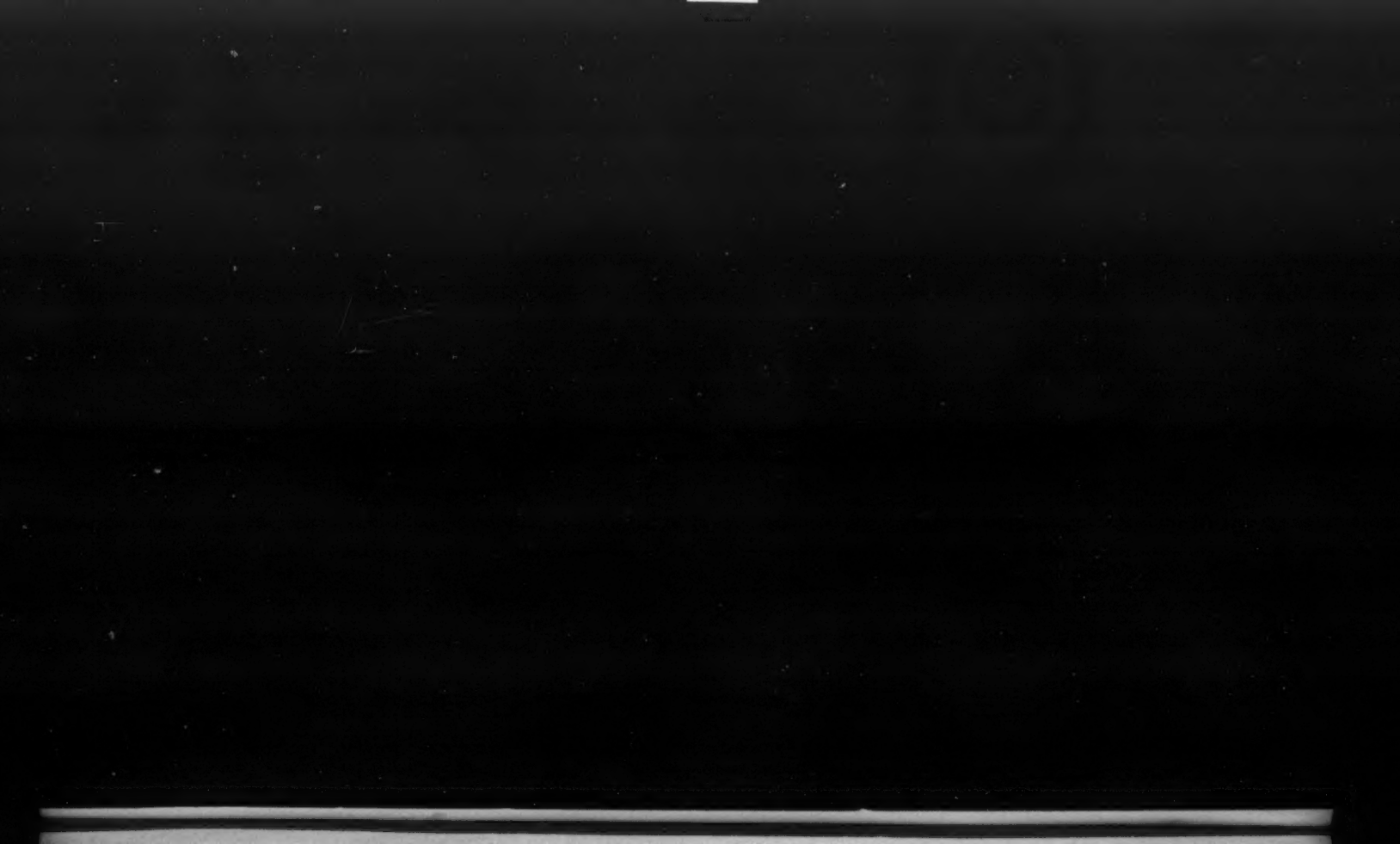
♀.—Length 5.5 and 7 mm. Pile throughout much shorter than in the male. Face, front and vertex bluish gray, lighter on the face; front and vertex with minute black hairs, first joint of the antennæ brownish, mouth-parts reddish, tips of the palpi and proboscis dark brown; ovipositor reddish.

Three specimens, Edge Hill, Montgomery County, Pennsylvania, June 2; Philadelphia, June 11. The species resembles closely the *S. crassicornis* of Europe.

In recently going over some dipterological literature I find the name *Leptogaster longipes* given to a Jamaican species (Proc. Acad. Nat. Sci. 1894, 273) is preoccupied by Walker for an Asiatic species (Proc. Linn. Soc. iii, 89, 44). I therefore propose in its place the name of *Leptogaster clavipes*.

OBITUARY.

Alois Rogenhofer, Lepidopterist, in Vienna, on January 15, aged 65 years; was formerly Custos of the Naturhistorisches Hofmuseum.

C. F. Wiepken, Ornithologist and Coleopterist, in Oldenburg, on January 29.

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